REMARKS

I. Examiner Interview Conducted on May 6, 2011

Applicants thank the Examiner for the telephonic interview of May 6, 2011, during which the pending claims were discussed and the Examiner suggested amendments to advance prosecution.

II. The Office Action

Claims 11-37 and 40-75 are currently pending in the application. Claims 36, 37, 40-46 and 75 are under examination, and claims 11-35 and 47-74 are withdrawn from consideration for being directed to non-elected subject matter. Claims 36, 37, and 40-46 were rejected under 35 U.S.C. § 112, first paragraph, for assertedly lacking enablement. Claim 75 was rejected under 35 U.S.C. § 103(a) for assertedly being obvious in view of Weimar et al., *Exp. Hematology*, *26*(9), 885-894 (1998) ("Weimar") and Kollet et al., *Blood*, *97*(10), 3283-3291 (2001) ("Kollet"). Reconsideration of the rejection under 35 U.S.C. § 112, first paragraph (enablement), is respectfully requested.

III. Amendments to the Claims

Claims 11-35 and 47-75 have been canceled. No new matter has been added by way of the amendments.

IV. The Rejection Under 35 U.S.C. § 112, First Paragraph, Should Be Withdrawn

The Examiner asserted that exposure of the stem cells to HGF alone, as effectively recited in claim 36, would not significantly increase CXCR4 expression. Office Action, page 3. The Examiner asserted that up-regulation of CXCR4 was only associated with the cystoskeletal rearrangement (i.e., lamellipodia formation) observed upon exposure to both SCF and HGF. *Id.* In contrast to the Examiner's assertion, the specification states on page 36 that HGF alone induced formation of actin-based protrusions from the cell surface, SCF and HGF together promoted lamellipodia formation, and SCF alone caused cells to spread and become polarized. The specification then states that the cytoskeletal rearrangements, i.e., formation of actin-based protrusions, lamellipodia formation, and

spreading and polarization, were associated with CXCR4 upregulation. Figure 1 confirms that exposure of stem cells to HGF alone increased expression of CXCR4 (Figure 1a) and SDF-1 directional migration (Figure 1b). SDF-1 was known in the art to be the ligand for CXCR4. The increased motility of stem cells treated with HGF alone toward an SDF-1 gradient illustrated in Figure 1b confirms that these cells have increased CXCR4 on the cell surface. Thus, the Examiner is incorrect in stating that HGF alone would not significantly increase CXCR4 expression.

The Examiner stated that "the specification clearly discloses that HGF did not induce chemotaxis of human progenitors alone." Office Action, p. 3. The Examiner has misinterpreted this statement to mean that "HGF alone cannot induce CXCR4 up-regulation." *Id.* The statement cited by the Examiner means that HGF did not act as a *chemoattractant*. In other words, stem cells do not chemotax toward HGF. Instead, as demonstrated in Figure 1, HGF upregulates CXCR4, allowing the cells to more efficiently chemotax toward an SDF-1 gradient. Thus, the specification fully supports and enables the claimed method and the rejection should be withdrawn.

V. The Rejection Under 35 U.S.C. § 103(a) Should Be Withdrawn.

The Examiner rejected claim 75 under Section 103(a) for assertedly being obvious in view of Weimar taken with Kollet. In order to expedite prosecution, and not in acquiescence to the Examiner's position, claim 75 has been cancelled. Thus, the rejection is moot. Accordingly, Applicants respectfully request withdrawal of the Section 103(a) rejection of claim 75 as obvious over Weimar in view of Kollet.

VI. Conclusion

Applicants submit that the pending application is in condition for allowance, and the Examiner is respectfully requested to provide notice thereof. The Examiner is invited to contact the undersigned attorney by telephone if there are issues or questions that might be efficiently resolved in that manner.

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Respectfully submitted,

By 

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